





3. Urban Setting



3.1 Urban Integration

As a company we understand the important role we play for residents of Santiago. As such, having good communication and coordination with other players in the public transit system is essential.

Moreover, we aim to strengthen our ties and communication with our passengers by keeping them abreast of our operations. This allows us to better address contingencies affecting the operational stability and continuity of our services. In addition to the latter, we try to foster close and seamless ties with authorities involved in our business sector. In 2016, we maintained open, ongoing dialogue with them, resulting in coordinated responses.

Integrated Transit System

We are aware of the importance of Metro in the Santiago transit system. Accordingly, stations serve as public meeting points and transfer points for other means of transportation such as Transantiago, intercity buses, and bicycle paths. Moreover, we are located near rural bus terminals and train stations.

Bus Terminals

Our network includes intermodal stations that provide our users with alternatives to seamlessly and easily continue their trips and connect with other means of transporting such as local, rural and interurban buses.

Currently, Metro manages six bus terminals that enable passengers to transfer to other means of transportation. These terminals are located at the following stations:

- Pajaritos, Line 1
- Lo Ovalle, Line 2
- Vespucio Norte, Line 2
- La Cisterna, Line 2
- Del Sol, Line 5
- Bellavista de La Florida, Line 5

Traveling with Bikes

As part of our ongoing interest in forging closer ties with and being more supportive of our passengers during city events, in 2016 we decided to allow our passengers to board trains with their bikes on a few Sundays throughout the year.

We implemented this special measure with a view to making it easier for Santiago residents to take part in the 2016 World Bike Forum held March 31st through April 5th at several locations throughout Santiago. In our quest to support this initiative, we asked bike riders to board Metro trains only through the first door on the first train. We also reinforced the number of security guards and service assistants on duty in order to facilitate the travel.

Due to our good evaluation of the experience, we repeated this initiative on World Environment Day (June 5th) and Municipal Election day (October 23rd). As a result of this special measure, passengers were able to travel by bike throughout the entire network.





We Are by Your Side during Large Events in Santiago

“Metro is a lead player in the integrated public transit system and we work daily to improve the city. We are part of the lives of Santiago residents which is why we must be present at important moments for our passengers. As a result, in 2016 we have designed a few special measures to expand our presence especially during Lollapalooza, the Santiago Marathon, Heritage Day, Independence Day and the New Year, for example,” explained María Irene Soto, Metro’s Customer and Sustainability Manager.

Throughout the year we were involved in various events held in our capital by providing our services and promoting special editions of the bip! card for said events. For example, we were present at the 2016 Womad Chile music and dance festival held in Recoleta with the participation of over 130 performers from 17 countries and four continents who make thousands of people swing and sway.

Moreover, in 2016 we were the official means of transportation for the Santiago Marathon. We set up a series of operational measures to facilitate travel for all passengers running in the event and cheering on as fans. Some key measures included opening Lines 1 and 5 earlier in the morning, and launching a special commemorative bip! card for the sporting event.

We also provided support for Lollapalooza which took place in O’Higgins Park on March 19th and 20th. For this special event we added trains to the regular service and extended closing time by an hour and a half on Lines 1 and 2. Prior to the event Metro set up a bip! Card charging center so that festivalgoers could charge their cards in advance.

Another noteworthy initiative was our participation during Chilean National Heritage Day festivities. Every year Metro opens its door to the community by providing guided visits to our Corporate Offices and Integrated Control Center (CIC). In 2016 we received nearly 700 visitors on the tour. Furthermore, our staff members conducted guided tours at four stations (Cal y Canto, La Moneda, Universidad de Chile and Quinta Normal) where they showed visitors the various works of art showcased at each station. In association with Bibliometro we launched a literary/heritage video tour of “Downtown Santiago and its surroundings” narrated and written by authors Ramón Díaz Eterovic, Enrique Lihn, Álvaro Bisama, Alfredo Gómez Morel, Rodrigo Lira and other Chilean poets and narrators.



In April we celebrated the National Day of Chilean Cuisine with an event at Baquedano station held within the context of Ñam, Latin-American Food Festival. Hundreds of people came together to take part in this big community party to celebrate our food heritage. The activity was jointly organized by Ñam, the Corporación por las Cocinas de Chile (Pebre), the Municipality of Santiago, the Undersecretariat of Tourism, the Fundación Imagen de Chile, and Metro de Santiago as a way to pay homage to typical Chilean gastronomy. The folk group “La Gallera” performed as musical backdrop for many delicious tastings.

On the eve of Independence Day celebrations, Metro and the Corporación por las Cocinas de Chile (Pebre) jointly organized a culinary event for our passengers at the Universidad de Chile where customers had the opportunity to try different versions of Chilean pebre served with homemade bread and empanadas. Well-known Chilean chefs prepared these delicacies. Moreover, we implemented several new operational measures during these festivities such as extended service hours at the network’s busiest ticket counters. Additionally, Metro operated all of its lines until midnight on Friday, Saturday and Sunday (September 17th, 18th and 19th) in the aim of making holiday travel easier for Santiago residents.

On other occasions we applied special measures to benefit citizens, such as when the Chilean national soccer team played at home, putting more trains on our tracks and more staff at tickets counters, along with additional security measures. We also broadcast the game live over our passenger communication system for those who were unable to make it home in time to watch the game.

We are especially proud of having participated in the Teletón. Alongside Don Francisco we appealed to the public to support the campaign and issued a new Teletón bip! card which was designed by children who took part in the Teletón art workshop. Metro users were quite surprised to hear the voice of Don Francisco over the PA system when he began calling out the stations from one of the train operator’s control cabins. He also invited passengers to join once again the solidarity crusade. Also, for the sixth consecutive year, Banco de Chile set up a network of extra ATMs at Metro stations so that residents could begin donating early on.

3.2 Art and Culture

Through the MetroArte Cultural Trust (Corporación Cultural MetroArte) we endeavor to make a unique contribution to our citizens by turning our stations and network into venues where people can experience various forms of art and culture on a daily basis.

Our cultural strategy is based on four key areas: i) exhibitions; ii) promoting reading; iii) music; and iv) MetroArte (large format works of art displayed at our stations). In 2016 we added a fifth area to our cultural portfolio, called “Culture and Territory” which encompasses activities organized in conjunction with the community such as murals. These take place at our facilities and in areas surrounding Line 3 and 6 construction sites.

In 2016 we sponsored 44 cultural activities linked to our five pillars, 55% of which were related to music and promoting reading, such as the various exhibitions on tour at stations throughout our network, and youth orchestra concerts.

Type of Activity	Amount	Percentage Share
Musical	12	27%
Art Shows	9	20%
Promoting Reading	12	27%
Culture and Territory	7	16%
MetroArte	4	9%
2016 Total	44	100%



Likewise, in 2016 we invested more than \$33 million in maintenance fees for MetroArte works installed at the Estación Central, Los Leones, La Moneda and Bellas Artes stations.

In addition, we continue to be in a partnership with the Presidential Office of Sociocultural Affairs, which has turned into a series of activities held at our stations thanks to the hard work of a handful of institutions grouped under this government office.

The following is a summary of the most important activities held in 2016, which were enjoyed by Santiago residents:

- **Music on the Metro:** we hit a milestone in 2016 with this project, which aims to provide musicians the space they need to play inside our stations. We organized a contest to choose the best 60 performers, who then received a license granting them permission to always play in our network in areas specifically marked off for this purpose.
- **Metro de Santiago Book Launching:** in 2016 we published “El Gran libro de Metro de Santiago,” a compilation of more than 40 years of historic material including major milestones and what the underground train has meant to the daily lives of millions of individuals. Created as part of our 41st anniversary celebrations, this book contains narrations of tales told by ordinary citizens who have given life to our urban infrastructure that has not stopped servicing the public for more than forty years. Additionally, the book contains a series of historic documents such as photographs, maps, pamphlets, posters and other graphic works that make it a veritable collector’s item for aficionados and all readers.
- **Santiago in 100 Words:** 2016 marked the 15th version of this traditional literary contest. This year we decided to innovate by adding a sister contest entitled “My Neighborhood in 100 Words,” for residents of Greater Santiago neighborhoods wishing to write about their community, local identity, or common heritage. This contest was launched jointly with residents living in the Huemul neighborhood.
- **Youth Orchestra Concerts:** held primarily at our Quinta Normal station monthly from May to October 2016, our visitors were delighted with the talents of young musicians from the San Miguel, Huechuraba, Lo Barnechea, Puente Alto and Pudahuel orchestras, the Nosedal School Youth Orchestra, the Ensamble Moderno group (from the Santiago School of Modern Music) and the Metropolitan Student Symphonic Orchestra (children and youth)

- **Exhibits:** for several months the Quinta Normal station served as a venue for a wickerwork exhibit showcasing several pieces contributed by the Chilean Foundation of Artisans (Fundación Artesanías de Chile), Chimbarongo Municipality, and the Universidad de Chile’s School of Design; the traveling Photopress exhibits; and a contest entitled “Letters from Women,” sponsored jointly by the Museum for Women (Museo de la Mujer) and Chilean Gendarmerie.
- **Folk Music and Dance at Metro Stations:** several traditional Chilean folk music and dance shows called esquinzos were performed at our stations in September. Also, thanks to a partnership with the La Florida Municipality and the Association of Folk Groups (Unión Comunal de Grupos Folclóricos) from that district, groups of performers representing traditional dances from throughout Chile performed at several of our stations in the La Florida neighborhood, livening up our passengers’ commutes and passersby.
- **Participatory Mural:** two murals painted collectively by local artists and community member were unveiled at our Universidad Católica and Parque O’Higgins stations, in addition to other murals painted on OSB walls enclosing various Line 3 and 6 construction sites (Plaza Chacabuco, Pedro Aguirre Cerda, Parque Almagro, Cal y Canto and Museo Precolombino).

“Visual Memory of a Nation” mural on Exhibition at the National History Museum

In September we showcased an exhibit at the National History Museum. This was the first ever glimpse of the preparatory panels of Mario Toral’s mural “Visual Memory of a Nation” which is currently on display at the Universidad de Chile station.

During a 40-day period we placed on display over 26 works from the Museum’s permanent collection and the following sketches: “La creación del mundo según el mito mapuche,” “La crucifixión,” “La Batalla,” “Fusilamiento de Portales,” “Suicidio de Balmaceda,” “Vida y Muerte en las Minas de Carbón,” “Masacre del Seguro Obrero,” “La Ley Maldita,” and “Bombardeo de La Moneda.”

Rodrigo Azócar, Chairman of our Board, remarked that *“Metro is honored to display these works. They help us paint a picture of who we are as Chileans while also allowing us to sketch our dreams.”*

This catalogue was funded by Metro’s Foundation for Culture and includes photographs of murals, sketches from the exhibit, and remarks by Lautaro Núñez, (recipient of the 2002 National History Award), Jorge Pinto (recipient of the 2012 National History Award) and Julio Pinto (recipient of the 2016 National History Award).



All in all, more than 900,000 people took part directly in these activities. According to an independent survey conducted periodically, in 2016 Metro's "culture and entertainment" net overall satisfaction rate was 82%, nine percentage points greater than the previous year.

Moreover, BiblioMetro celebrated its 20th anniversary and continues to be the second largest public library in the country, loaning more 350,000 items annually.



3.3 Network Expansion

Line 3 and 6 Construction Progress

In 2016 the company hit many Line 3 and 6 construction milestones. As of December 2016, Line 6 was 90% complete with an estimated startup date during the second half of 2017, while Line 3 was 63% complete by the end of 2016 with an estimated startup date during the second half of 2018.

Other Important Milestones during the period were:

Line 3	Line 6	Others
<ul style="list-style-type: none"> Tunnel excavation completed. 	<ul style="list-style-type: none"> Tunnel excavation complete Work on laying 20kv cables began First trains enter workshops. Line supplied with power First test train ran on line Workshops supplied with power Track concrete work complete Train testing on line began First train ran the entire line. 	<ul style="list-style-type: none"> First trains arrive in Chile

Moreover, these new projects also have a significant indirect, social and environmental impact, for example, development opportunities crop up in areas surrounding the stations; nearby housing and commercial real estate increase in value; and street-level commuting time decreases.



Lines 3 and 6 in Figures

Investment Line 6: USD 1.263 (billion) Line 3: USD 1.786 (billion) P63: USD 3.049 (billion)	Percentage of works completed as of December 31, 2016 Line 6: 90% Line 3: 63% P63: 73%
Beneficiaries More than one million residents	Total Distance in km Line 6: 16 kilometers Line 3: 21 kilometers

How will the new lines operate?

Both projects meet strict quality and technology standards, including several innovative solutions when compared to our existing lines. The following are a few noteworthy examples: automatic platform doors, overhead power cables, automatic operated trains, onboard cameras, air conditioning, passenger information system, and universal access. Additionally, trains are evacuated from the front and run on automatic pilot (UTO). The following is a detailed description of the main attributes of these new projects.

More information at: <http://www.metrosantiago.cl/minisito/linea-3-y-6/>



More technology and services for a better riding experience



Stations and Trains Designed with Accessibility in Mind

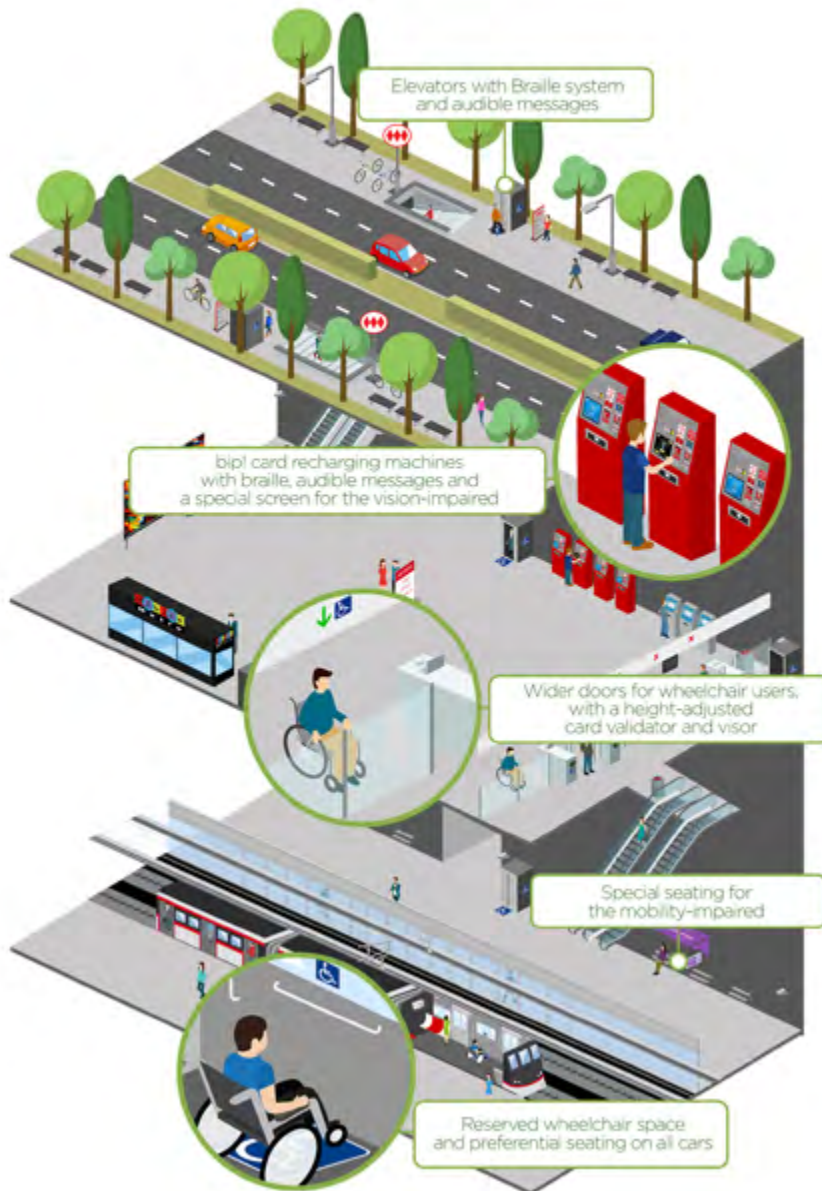
We applied a series of criteria and standards in the design of Lines 3 and 6 in order to provide our users a safer, more comfortable and independent commute.

The following are some of the main features of these new trains and stations:

- There are elevators at every station so that mobility-impaired customers may move around independently.
- Tactile paving so that blind or visually impaired passengers may navigate stations.
- Self-service machines with instructions in braille and a low-vision mode that changes the tactile screen's color and contrast. They also have audio messages that will make the b!p! card purchasing and recharging process easier.
- Wheelchair accessible trains with preferential areas for individuals traveling in wheelchairs and preferential seating for passengers with impaired mobility.
- There is also special ergonomic seating located at the platform level to make it more comfortable for mobility-impaired individuals to get around. This seating is located along platform walls so that users may rest in a semi-seated position, which is more comfortable for older passengers or others who have a hard time getting around. This feature also makes for more optimal use of space along the platforms.



Universal Accessibility



Safer Stations and Trains

One of our main concerns as a company is being able to provide our users safe, reliable services. To this end, we have installed a Closed Circuit Television (CCTV) system along the entire length of these new lines. It is equipped with video surveillance technology to watch over the lines, support operators, and provide a safer place for passengers.

The main features of this system are described below:



Constant monitoring of Line 3 and 6 stations and trains



Greater security at stations and on trains



Provides real-time support to stations



Complete coverage of stations and trains (no blind spots)

The CCTV system will allow us to see and record images captured on cameras located inside trains and at stations. There is complete camera coverage at stations so that we can have greater control over entrances, escalators, elevators, recharging zones, control line, and platform doors.

Regarding trains, there will be 10 cameras installed inside each car, plus two exterior cameras located at each end of the trains, pointing toward the track, amounting to a total of 52 cameras per train.

This system will provide us with the capability to detect problems, contingencies, hazardous situations or other circumstances that affect the safety and security of users and Metro personnel, and/or the operational continuity of our services.

Furthermore, our trains will be equipped with an inter-phone communication system so users will be able to communicate with Metro personnel while en route. This way we can provide instructions and answer questions throughout the entire network under critical circumstances. There will be a Passenger Communications Officer assigned to each line to manage communications in the event there are simultaneous calls coming from one train on the track. The officer will be able to look at the camera and prioritize the calls.

Additionally, there will be external operators who will also answer calls; for example, sales operators are responsible for answering calls made from the self-service kiosks; and the Call Center routes calls received from interphones located at information points.

Forms of Payment at Line 3 and 6 Stations

Payment will be automatic on the new lines, which will make it necessary for riders to use the self-service kiosks to purchase and load their bip! cards using either cash, credit or debit cards.

We have two types of self-service top-up machines, as follows:

- Riders can use our self-service top-up machines (MAS in Spanish) to purchase and charge bip! cards, inquire into card balances, and activate remotely charged cards; or
- Riders can use our compact self-service top-up machines (MASC in Spanish) to inquire into card balances and add exact amounts of money to bip! cards since these kiosks do not give back change.

Main Attributes of Top-Up Machines:



Easy and quick way to purchase and recharge cards



We made sure we developed a user-friendly and universally-accessible system with low-vision mode, Braille writing, and installed at an appropriate height for individuals with impaired mobility.



Top-Up Machines are equipped with a help button for remote assistance.

Passenger Information Technology

Metro's new lines will be equipped with several screens located at stations, and on platforms and trains in order to provide riders with relevant and timely information. There are different types of screens with different purposes, as explained below:

Interactive Screens	Touch screens with menu options to provide users with information on the station where they are located, its surrounding area, service hours, and general service information. Located in the no-pay zone (public area) close to the InfoMetro panels.
Screens located along the line of control	Broadcast predetermined, automatically programmed content that can be interrupted in the event Metro needs to convey urgent information. These will be located at the entrance area so that users will be able to see the information prior to entering the paid zone.
Screens located in transfer area	Located at transfer stations, specifically where connections are made.
Platform Screens	Provide real-time service information to riders while waiting for trains. We plan on installing four of these screens on each platform, except for terminal station platforms where these screens will be located only on exit platforms. Content broadcast over these screens will be related to: the weather; destination of the next two trains scheduled to arrive on that track; vacancy level of arriving train; direction the trains are headed in; next station, transfer point and terminal station.
LED Screens	LED screens are installed on platform doors with passenger information. They are located above each door and will display warning messages when train doors are faulty or not working.
On-Board Screens	We plan on placing screens at both ends of every car to provide passengers with information regarding train traveling time and emergencies.



Moreover, we have a public address system with pre-recorded and real-time messages which can be heard at all station levels and on all trains. This will allow Metro to keep passengers informed of service updates at all times while also providing riders with timely information in the event of emergencies.

Expansion of Lines 2 & 3

In 2015 Metro announced its plans to extend Line 2 up to San Bernardo and Line 3 to Quilicura. Both projects will enable us to extend our network to three new counties (Quilicura, El Bosque and San Bernardo), thereby benefiting some 600,000 residents who will be able to cut back their commutes by 80%.

The Line 2 extension project consists of 5.1 kilometers and four stations running from the La Cisterna station all the way to El Pino Hospital, located on the outskirts of San Bernardo and El Bosque; and the Line 3 extension project consists of 3.8 kilometers of track and three new stations. Once operational, the extended line will allow riders to travel from Universidad de Chile to Quilicura station in roughly 19 minutes. In 2016 we began working on the engineering of both projects.

